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11. (Twice Amended) A process for producing a corrosion- and wear-resistant layer as set forth in claim 1 characterised by an on-line controlled plasma spray process.

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13. (Thrice Amended) A process for producing a corrosion- and wear-resistant layer on a substrate by thermal spraying as set forth in claim 1 characterised in that said material to be sprayed has at least 20% by weight of magnetite (Fe_3O_4 and/or FeFe_2O_4).

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24. (Thrice Amended) A process as set forth in claim 13 characterised by a grain size of said material to be sprayed of between 0.05 and 150 μm .

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28. (Amended) A process for producing a corrosion- and wear-resistant layer on a substrate by thermal spraying as set forth in claim 1 characterised in that said material to be sprayed has more than 30% by weight of magnetite (Fe_3O_4 and/or Fe_2O_4).

06
32. (Amended) A process as set forth in claim 13 characterised by a grain size of said material to be sprayed of between 0.1 and 120 μm .

Please add claims 33-35.

33. The process as set forth in claim 1 wherein said spraying said iron oxide-based material comprises spraying said iron oxide-based material having more than 30% by weight of magnetite (Fe_3O_4 and/or Fe_2O_4).

34. The process of claim 1 wherein said spraying by on-line controlled plasma spraying comprising a mode of spraying selected from the group consisting of high-speed flame spraying, plasma spraying, high powered plasma spraying (HPPS), shroud plasma spraying (SPS), on-line controlled wire-flame spraying, thermal spraying and arc wire spraying.

35. The process of claim 1 wherein said spraying by on-line controlled plasma spraying comprises plasma spraying and said plasma spraying is performed in a mode selected from the group consisting of plasma spraying in air and plasma spraying in a vacuum.